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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/824,193 | 04/02/2001 | Johannes-Jorg Rueger | 10744/4200 | 1578 |

26646 7590 10/10/2002

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EXAMINER

BUDD, MARK OSBORNE

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2834

DATE MAILED: 10/10/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

824193

Applicant(s)

Rueger et al

Examiner

M. Budd

Group Art Unit

2834

--The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address--

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☒ Responsive to communication(s) filed on 9-3-02
- ☒ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-34 is/are pending in the application.
- ☐ Of the above claim(s) is/are withdrawn from consideration.
- ☐ Claim(s) is/are allowed.
- ☒ Claim(s) 1-34 is/are rejected.
- ☐ Claim(s) is/are objected to.
- ☐ Claim(s) are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
 - ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
 - ☐ received in Application No. (Series Code/Serial Number) _____.
 - ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

*Certified copies not received: _____

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☐ Interview Summary, PTO-413
- ☐ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other _____

Office Action Summary

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Claims 8-17 are rejected under 35 U.S.C.112 as vague and indefinite for the reasons noted in paper no 6 (3-27-02). Again it is pointed out that no specific recognizable steps are claimed. It is noted that applicants are aware of proper method claim drafting as evidenced by newly submitted method claims 25-34. Claims 8-17 are nothing more than a vague collection of ideas with no definitive steps. The notation that "a definition is made" is not the same as the step of "defining a parameter" or "determining a valve", "measuring a normal travel distance" etc. These are clearly defined recognizable steps. One of ordinary skill in the art could not determine the meters and boards of these "method" claims.

Claims 1, 3, 4, , 18, 20, 21 and 25 are rejected under 35 U.S.C. 102 as anticipated by Japanese (753) or Japan (684). It is noted that these references were also applied as anticipatory references by the European Search Authority in the Search Report submitted by applicants on 7-9-01. (See the English language abstract) a control circuit for driving a piezo-electric element while compensating for changes caused by ageing , temperature etc. etc. Any defect or abnormality would be compensated, including those perceived to originate in the manufacturing process. Thus without specific mention of changes in thickness due to e.g. manufacturing defects, these references inherently compensate for such variatings by the apparatus and method as disclosed. Note claim 18 and 1 merely call for apparatus "characterized" or "configured" to perform a desired function. Structurally they only define a piezo-electric actuator and any drive circuit. These narrative type claims, not using "means plus function" language thus would not

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define from the references even if the references didn't show the desired function noted in applicants claims.

Claims 1, 2, 8, 9, 18, 19, 25 and 26 are rejected under 35 U.S.C. 102 as anticipated by Moloney. Moloney teaches providing a feedback loop to control the charging of a piezo injector. Travel distance is measured and compensated for if it isn't equal to a desired valve this on-line compensation is constant as conditions change e.g. were, temperature fluctuation etc. Thus any abnormalities of the piezo expansion and contraction requiring compensation are addressed and corrected.

Claims 3-7, 10-14, 20-24 and 10-31 are rejected under 35 U.S.C. 103 as unpatentable over Moloney in view of Takada or Jaenker for the explicit reasons set forth in paper no 6 (3-37-02).

Claims 15-17 and 32-34 are rejected under 35 U.S.C. 103 as unpatentable over Moloney in view of Takada or Jaenker and combined with Baron or Estevenon for the reasons noted in paper no 6.

Regarding applicant's comments it is noted that U.S. Patent 6247451 has a 35 U.S.C. 102(c) date of 12/18/99 and was published as WO 9a/43940 on 9-2-99 which is substantially prior to applicant's claimed priority date of 4/1/00.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

MARK U. BUDD
PRIMARY EXAMINER
ART UNIT 212

M BUDD/pj

10/09/02